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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,894	09/27/2005	Kazuki Sawa	2005_1428A	3729

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WENDEROTH, LIND & PONACK L.L.P.
2033 K. STREET, NW
SUITE 800
WASHINGTON, DC 20006

EXAMINER	
NATNAEL, PAULOS M	
ART UNIT	PAPER NUMBER
2622	

MAIL DATE	DELIVERY MODE
06/27/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/550,894	SAWA, KAZUKI	
	Examiner	Art Unit	
	PAULOS M. NATNAEL	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *5* is/are allowed.

6)☒ Claim(s) *1 and 2* is/are rejected.

7)☒ Claim(s) *3 and 4* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 September 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims **1 and 2** are rejected under 35 U.S.C. 102(e) as being anticipated by Takeda et al., U.S. Pat. No. 6,542,202.

Considering claim 1, Takeda et al. (hereinafter, "Takeda") discloses *all claimed subject matter including* a video signal processing apparatus improving signal level by automatic gain control (GCA) and frame addition method. The video processing apparatus comprises GCA circuit 1 which receives the video signal, A/D converter 2, image memory 5, adder 6, multiplier 9, signal level detecting (46,44) and a frame cyclic noise reduction circuit (21, 47) as illustrated in Figs. 10,12, and 13, the frame cyclic noise reduction circuit corresponds to the claimed frame cyclic noised reduction method employed in an image display device. The frame cyclic noise reduction circuit in turn comprises a motion detecting circuit 22 which calculates an amount of change in motion of each pixel from the video signal S12 (and which corresponds to the claimed detector) and coefficient control unit 23 which receives a signal level detecting signal K3, changes

the filter parameter of K3, that and outputs the coefficient control signal K4 (corresponding to the claimed controlling a cyclic amount). *See col. 17, line 18-21 and 42+; col. 21, lines 55+. .*

Regarding claim 2, Takeda discloses the motion detector 22 which calculates an amount of change in motion of each pixel from the video signal S12 which has been improved from low illuminance. See col. 17, lines 59-61.

Allowable Subject Matter

3. Claim **5** is allowed.

4. Claims **3** and **4** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to disclose, wherein a cyclic amount corresponding to a movement amount in the area where the sub-field fuzziness becomes worse is determined to be equal to, or to be smaller than the cyclic amount for areas other than the area where the sub-field fuzziness becomes worse, as in claim 3; wherein the area where the sub-field fuzziness becomes worse is included in an area in which an image signal level decreases along a moving direction of image when sub-fields constituting the one field are arranged in an ascending order of weight of luminance, whereas the

area where the sub-field fuzziness becomes worse is included in an area in which an image signal level increases along a moving direction of image when the sub-fields constituting the one field are arranged in a descending order of weight of luminance, as in claim **4**; and,

a frame-cyclic noise reduction device employed for an image display device in which one field is divided into a plurality of sub-fields each of which has a predetermined weight of luminance, and turned-on sub-fields are properly combined to provide image with gradation, the device comprising: a luminance change area detector for detecting an area where an edge portion of an image becomes unclear, i.e., where sub-field fuzziness becomes worse; a movement amount detector for detecting a movement amount of an image according to a differential signal calculated as a difference between a current-frame image signal and a one-frame-before image signal; and a cyclic amount determining section for determining a cyclic amount according to outputs from the luminance change area detector and the movement amount detector, wherein the cyclic amount determining section contains at least two translation tables for translating from the movement amount to the cyclic amount, and selects one from the translation tables according to the output from the luminance change area detector, as in claim 5.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tanaka U.S. 5,333,054 discloses an apparatus for reducing noise in a video signal by processing a luminance and chrominance component.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAULOS M. NATNAEL whose telephone number is (571)272-7354. The examiner can normally be reached on 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571)272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PAULOS M. NATNAEL/
Primary Examiner, Art Unit 2622

June 22, 2008